

Claims:

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1. A method of modulating the apoptosis-inhibiting effect in a target cell or tissue of a mutant EGFR gene, comprising the step of administering to the cell or tissue an effective amount of a tyrosine kinase inhibitor in combination with a therapy that is effective to induce apoptosis or to increase the rate of apoptosis in the cell or tissue.
  2. The method of claim 1, wherein the mutant EGFR gene is constitutively active.
  3. The method of claim 2, wherein the mutant EGFR gene is ΔEGFR.
  4. The method of any of claims 1 to 3, wherein the cell or tissue is a tumor selected from the group consisting of glioma, breast cancer, lung cancer and ovarian cancer.
  5. The method of claim 4, wherein the tumor is a glioma.
  6. The method of claim 1, wherein the apoptosis inducing or apoptosis rate increasing therapy is the administration of an agent selected from the group consisting of cisplatin, paclitaxel and vincristine.
  7. The method of claim 1, wherein the tyrosine kinase inhibitor is relatively selective for a tumor specific mutant EGFR.
  8. The method of claim 1, wherein the tyrosine kinase inhibitor is selected from the group consisting of Tyrphostin AG1478 and its derivatives.

9. A pharmaceutical composition comprising:
- (A) an amount of an agent that is effective to induce apoptosis or increase the rate of apoptosis in a target cell or tissue; and
- (B) an amount of a tyrosine kinase inhibitor that is effective to reduce the resistance to the induction of apoptosis or resistance to the increased rate of apoptosis in the target cell or tissue, the resistance being mediated by a mutant EGFR.
10. The composition of claim 9, wherein the apoptosis inducing or apopoptosis rate increasing agent is an antitumor agent selected from the group consisting of cisplatin, paclitaxel and vincristine.
11. The composition of claim 9, wherein the tyrosine kinase inhibitor is relatively selective for a tumor specific EGFR.
12. The composition of claim 9, wherein the tyrosine kinase inhibitor is selected from the group consisting of Tyrphostin AG1478 and its derivatives.
13. A kit for treating cancer comprising
- (A) an amount of an agent that is effective to induce apoptosis or increase the rate of apoptosis in a target cell or tissue; and
- (B) an amount of a tyrosine kinase inhibitor that is effective to reduce the resistance to the induction of apoptosis or resistance to the increased rate of apoptosis in the target cell or tissue, the resistance being mediated by a mutant EGFR.
14. The kit of claim 13, wherein the apoptosis inducing or apoptosis rate increasing agent is an antitumor agent selected from the group consisting of cisplatin, paclitaxel and vincristine.

15. The kit of claim 13, wherein the tyrosine kinase inhibitor is relatively selective for a tumor specific EGFR.

16. The kit of claim 13, wherein the tyrosine kinase inhibitor is selected from the group consisting of Tyrphostin AG1478 and its derivatives.